# Actuarial Section

INDIANA PUBLIC RETIREMENT SYSTEM

2012 COMPREHENSIVE ANNUAL FINANCIAL REPORT

For the Fiscal Year Ended June 30, 2012

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#### Introduction

rior to July 1, 2011, the Defined Benefit retirement plans for public employees in the State of Indiana were administered by independent instrumentalities governed by separate boards of appointed trustees, including the Public Employees' Retirement Fund and the Indiana State Teachers' Retirement Fund. Legislation adopted in 2010 called for a consolidation of these entities, which began with the appointment of a joint Executive Director in May 2010, and resulted in the creation of the Indiana Public Retirement System (INPRS) effective July 1, 2011.

For the seven (7) separate Defined Benefit retirement plans administered by INPRS, there are two (2) actuaries who currently provide the actuarial services as summarized below:

#### PricewaterhouseCoopers, LLP

- Public Employees' Retirement Fund
- 1977 Police Officers' and Firefighters' Pension and Disability Fund
- Judges' Retirement System
- State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers' Retirement Plan
- Prosecuting Attorneys' Retirement Fund
- Legislators' Defined Benefit Plan

#### Nyhart

■ Teachers' Retirement Fund

Accordingly, the INPRS FY2012 CAFR Actuarial Section includes an Actuary Certification Letter from each actuary for the actuarial valuations prepared as of June 30, 2012.



December 20, 2012

Board of Trustees Indiana Public Retirement System 1 North Capitol, Suite 001 Indianapolis, IN 46204

Re: Certification of the Actuarial Valuations of the Indiana Public Retirement System as of as of June 30, 2012

#### Dear Board of Trustees:

Actuarial valuations are performed annually for the Indiana Public Retirement System ("INPRS") defined benefit pension plans ("Plans"). The results of the latest actuarial valuations, which were prepared as of June 30, 2012, are presented in individual valuation reports for each fund and were prepared pursuant to the engagement letter between INPRS and PricewaterhouseCoopers LLP ("PwC"), dated June 7, 2010. The reports are intended to provide the Board of Trustees ("Board") with information on the funded status of the Plans, development of the contribution rates, and certain financial statement disclosure information.

Under Indiana statutes, employer contribution rates and amounts, as applicable, are adopted annually for each Plan by the Board. The contributions are actuarially determined based on the Board's funding policy and adopted actuarial assumptions. Contributions determined by the actuarial valuation become effective either twelve or eighteen months after the valuation date, depending on the applicable employer. For example, contribution rates determined by the June 30, 2012 actuarial valuation and adopted by the Board will become effective on either July 1, 2013 or January 1, 2014. If new legislation is enacted between the valuation date and the date the contributions become effective, the Board may adjust the recommended contributions before adopting them, in order to reflect this new legislation. Such adjustments are based on information supplied by the actuary.

#### **Financing Objectives and Funding Policy**

In setting contribution levels, the Board's principal objectives have been:

- · To set contributions such that the unfunded actuarial accrued liability ("UAAL") will be amortized over a 30-year period.
- To set contributions such that they remain relatively level over time.

To accomplish this, the Board's funding policy requires that employer contributions be equal to the sum of the employer normal cost (which pays the current year cost of benefits accruing) and an amortization of the UAAL in equal installments.

No membership growth is anticipated in setting the contributions. This is consistent with GASB #25, which prohibits anticipating membership growth in determining the Annual Required Contribution ("ARC").

#### **Progress Toward Realization of Financing Objectives**

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a Plan's funded status. In the absence of benefit improvements, it should increase over time, until it reaches 100%. The combined funded ratio for all Plans decreased by 4.2% from the preceding year to 79.2%, primarily due to fiscal 2012 investment returns of 0.7% being below the actuarial assumed rate of 7.0%, delayed recognition of prior asset losses from fiscal 2009 in the Actuarial Value of Assets, a decrease in the discount rate from 7.0% to 6.75%, and an update to the mortality table assumption.

#### **Benefit Provisions**

The benefit provisions reflected in the valuation reports are those which were in effect at June 30, 2012, as set forth in the related Indiana statutes. None of the Plans had any material changes in benefit provisions since the 2011 valuation; however, a 13th Check was provided to retirees in PERF and EG&C in lieu of a Cost-of-Living Adjustment.

PricewaterhouseCoopers LLP, One North Wacker, Chicago, IL 60606 T: (312) 298-2000, F: (312) 298-2001, www.pwc.com/



#### **Assets and Member Data**

The valuations were based on asset values of the trust funds and member census data as of June 30, 2012. All asset information and member data were provided by INPRS. While certain checks for reasonableness were performed, the data was used unaudited. The accuracy of the results presented in the reports is dependent upon the accuracy and completeness of the underlying asset and census information.

#### **Actuarial Assumptions and Methods**

The majority of the actuarial assumptions used in the June 30, 2012 valuations were adopted by the Board pursuant to the Experience Studies completed in September 2011, which reflected the experience period from July 1, 2005 through June 30, 2010, and were first used in the June 30, 2011 valuation. The actuarial assumptions for interest rate and mortality were updated for the June 30, 2012 valuation. The actuarial assumptions and methods are summarized in the Actuarial Assumptions and Methods section of each valuation report. We believe the actuarial assumptions and methods are reasonable for the purposes of the valuation reports and comply with the parameters set forth in Statements No. 25 and No. 27 of the Governmental Accounting Standards Board ("GASB"). Different assumptions and methods may be reasonable for other purposes. As such, the results presented in the valuation reports should only be relied upon for the intended purpose.

#### Certification

We certify that the information presented herein is accurate and fairly portrays the actuarial position of each Plan administered by INPRS as of June 30, 2012 based on the underlying census data, asset information and selected assumptions and methods.

This report contains the required accounting information to be included in the Comprehensive Annual Financial Report. This information has been prepared in accordance with our understanding of Governmental Accounting Standards No. 25 and No. 27 (as amended by No. 50). This report does not contain accounting information prepared in accordance with Governmental Accounting Standards No. 67 and No. 68, which will become effective for financial statements for fiscal years beginning after June 15, 2013.

To the best of our knowledge this actuarial statement is complete and accurate and has been prepared in accordance with generally accepted actuarial principles and practice and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with our understanding of the requirements of Indiana state law. The undersigned actuaries are members of the Society of Actuaries and other professional organizations, including the American Academy of Actuaries, and meet the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States relating to pension plans. There is no relationship between the PwC practitioners involved in this engagement and INPRS that may impair our objectivity.

This document was not intended or written to be used, and it cannot be used, for the purpose of avoiding U.S. federal, state, or local tax penalties. This includes penalties that may apply if the transaction that is the subject of this document is found to lack economic substance or fails to satisfy any other similar rule of law. This document has been prepared pursuant to an engagement letter between INPRS and PwC, and is intended solely for the use and benefits of INPRS and not for reliance by any other person.

Respectfully submitted,

Ms. Cindy Fraterrigo

Member, American Academy of Actuaries Fellow of the Society of Actuaries

Cirdy Draturyo

Enrolled Actuary (No. 11-06229)

Mr. Sheldon Gamzon

Member, American Academy of Actuaries Fellow of the Society of Actuaries

Enrolled Actuary (No. 11-03238)

Mr. Brandon Robertson

Member, American Academy of Actuaries Associate of the Society of Actuaries

Enrolled Actuary (No. 11-07568)

November 28, 2012

The Board of Trustees Indiana Public Retirement System Indianapolis, IN

#### Dear Board Members:

An actuarial valuation is prepared annually for the Indiana State Teachers' Retirement Fund. Submitted in this report are the results of the June 30, 2012 actuarial valuation.

#### Census Data and Asset Information

The member census data and the asset information for this valuation were furnished by the Chief Financial Officer and Staff. Their efforts and cooperation in furnishing these materials are acknowledged with appreciation. We did not audit the information provided, but we did review it thoroughly for reasonableness and compared it with the prior year's submission for consistency.

#### **Assumptions and Methods**

The actuarial assumptions used in the June 30, 2012 valuation were adopted by the Board on June 29, 2012, pursuant to the Experience Study of 2012, which reflects the experience period from July 1, 2007 to June 30, 2011. The interest rate and mortality assumptions were approved by the Board on June 29, 2012 for first use in the 2012 valuation. In addition, minor changes were also made to the retirement, withdrawal, and pay increase assumptions based on the Experience Study of 2012. Assumptions are summarized in the Assumptions and Methods section of this report. These assumptions and methods have been used to develop the Annual Required Contribution and are consistent with the accounting requirements detailed in GASB Statements No. 25, No. 27, and No. 50.

#### **Funding Objective**

The Indiana State Teachers' Retirement Fund Pre-1996 Account is funded on a pay-as-you-go basis from the State of Indiana.

The funding objective of the Indiana State Teachers' Retirement Fund 1996 Account is to establish and receive contributions that, when invested at the assumed rate of return, will ultimately accumulate assets over each member's working lifetime that will be sufficient to pay expected retirement allowances. As such, an employer contribution rate is calculated each year. That rate is then considered in conjunction with the goal of maintaining a relatively stable contribution over time.

#### **Fund Structure**

The Indiana State Teachers' Retirement Fund (TRF) is one fund comprised of a two-account structure in compliance with Indiana Code Section 5-10.4-2-2:

- The Pre-1996 Account consists of members who were hired prior to July 1, 1995, and who have maintained continuous employment with the same school corporation or covered institution since that date.
- 2. The 1996 Account consists of members who were:
  - a. hired on or after July 1, 1995; or
  - b. hired before July 1, 1995, and prior to June 30, 2005:
    - i. were either hired by another school corporation or institution covered by TRF, or
    - ii. were re-hired by a covered prior employer.

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#### Characteristics of the Pre-1996 Account

- Active membership in the Pre-1996 Account continues to decline as members quit, become disabled, die, or retire.
- The Defined Benefits from the Pre-1996 Account are funded by State appropriations (including contributions of some revenue from the State Lottery). At the time of retirement, Annuity Savings Account (ASA) benefits payable from the Pre-1996 Account are funded by the annuitization of Pre-1996 Account member contributions.

#### Characteristics of the 1996 Account

- As members depart from active service in the Pre-1996 Account, their replacements will become members of the 1996 Account. If the 1996 Account were a stand-alone plan, this pattern of departures and hirings would produce a fairly constant population size.
- Defined Benefits payable from the 1996 Account are funded by contributions from local school corporations or other institutions that employ covered members. At the time of retirement, ASA benefits payable from the 1996 Account are funded by the annuitization of 1996 Account member contributions.

#### **Funding Arrangements**

Prior to the legislation that established the two-account structure of TRF, the Defined Benefits of the Indiana State Teachers' Retirement Fund were funded with a pay-as-you-go method. Under this arrangement, amounts were appropriated to meet the current year's pension payment requirements. Defined Benefits payable from the Pre-1996 Account continue to be funded on this basis.

In 1995, the Pension Stabilization Fund was set up for the Pre-1996 Account. Since then, some pre-funding progress has been made via State appropriations to this account.

Defined Benefits payable from the 1996 Account are funded through employer percent-of-pay contributions. The Board of the Indiana Public Retirement System sets this contribution rate after reviewing the most recent actuarial valuation report.

The contribution rate of 7.50% for fiscal year 2013 was set by the Board in fiscal year 2012 for the 1996 Account. The contribution rate of 7.50% for fiscal year 2014 was set by the Board in fiscal year 2013.

#### Progress Toward Realization of Financing Objectives

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a Plan's funded status. In the absence of benefit improvements, it should increase over time, until it reaches 100%. The total funded ratio for the Plan (Pre-1996 Account and 1996 Account combined) decreased by 1.1%, to 42.7% from 43.8% for the preceding year due primarily to the reduction in the interest rate assumption from 7.0% to 6.75%, and 2009 – 2012 investment returns being lower than the actuarial assumed returns.

The funded ratio of the Pre-1996 Account (pay-as-you-go) decreased to 30.1% from 32.0% for the preceding year. Based on the actuarial assumptions, it is anticipated that the Pre-1996 Account will attain 100% funded status in FY2036.

The funded ratio of the 1996 Account decreased to 90.7% from 91.7% for the preceding year. Based on the actuarial assumptions, it is anticipated that the 1996 Account will attain 100% funded status in FY2021.

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#### Certification

We have included several schedules and exhibits in this report, including the following:
Summary of Actuarial Assumptions and Methods
Analysis of Financial Experience
Solvency Test
Schedule of Active Members' Valuation Data
Schedule of Retired Members and Beneficiaries
Schedule of Funding Progress
Schedule of Employer Contributions

The valuation was completed under the supervision of a Member of the American Academy of Actuaries with significant experience in valuing employee retirement systems, and was prepared using generally accepted actuarial principles and in accordance with standards of practice prescribed by the Actuarial Standards Board. To the best of our knowledge, this report is complete and accurate and the actuarial methods and assumptions produce results that are reasonable.

Michael Zurek, EN MAAA

Respectfully submitted

John Dowell, FSA, EA, MAAA

JD/lmw

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# ACTUARIAL SECTION Summary of Actuarial Assumptions and Methods as of June 30, 2012

The actuarial assumptions and methods used in the June 30, 2012 valuations for the following Defined Benefit retirement plans were adopted by the INPRS Board in June 2012:

- Public Employees' Retirement Fund (PERF)
- Teachers' Retirement Fund (TRF)
- 1977 Police Officers' and Firefighters' Pension and Disability Fund (1977 Fund)
- Judges' Retirement System (JRS)
- State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers'
  Retirement Plan (E,G,&C Plan)
- Prosecuting Attorneys' Retirement Fund (PARF)
- Legislators' Defined Benefit Plan (LEDB Plan)

It should be noted that the actuarial assumptions and methods are based primarily on plan experience from July 1, 2005 to June 30, 2010 for all the aforementioned Defined Benefit retirement plans except TRF (Note: adopted by INPRS Board in September 2011), and based on plan experience from July 1, 2007 to June 30, 2011 for TRF (Note: adopted by INPRS Board in June 2012).

#### Changes in Actuarial Assumptions:

For the June 30, 2012 actuarial valuations, the INPRS Board approved the following assumption changes:

- Interest Rate / Investment Return Assumption
  - All plans: Reduced from 7.0 percent to 6.75 percent.
- Mortality Assumption (Healthy and Disabled)
  - All plans: Changed from the IRS 2008 Static Mortality Table projected forward five (5) years with Scale
     AA to the IRS 2013 Static Mortality Table projected forward five (5) years with Scale AA.
- Future Salary Increases Assumption
  - TRF: Decreased slightly to reflect experience.
- Retirement Assumption Rates
  - TRF: Adjusted to reflect recent experience.
- Termination Assumption Rates
  - TRF: Adjusted to reflect recent experience.

For the June 30, 2011 actuarial valuations, the INPRS Board approved the following assumption changes:

- Future Salary Increases Assumption
  - PERF: Changed from 4.0 percent per year to age-based ranging from 3.25 percent to 4.5 percent.
  - 1977 Fund: Decreased from 4.0 percent per year to 3.25 percent per year.
  - E,G,&C Plan: Decreased from 4.5 percent to 3.25 percent.
- Retirement Assumption Rates
  - PERF: Decreased slightly to reflect experience.
  - 1977 Fund: Changed from age-based to age- and service-based, to reflect the service cap in the benefit formula and reflect recent experience.
  - JRS: Increased at ages 65-74 to reflect recent experience.

- E,G,&C Plan: Increased at ages 55, 56 and 59 to reflect recent experience.
- PARF: Increased to 20 percent for ages 62-64 to reflect recent experience.
- Disability Assumption Rates
  - 1977 Fund: Adjusted to reflect recent experience.
- Termination Assumption Rates
  - PERF: Increased to reflect recent experience and are now based on salary above or below \$20,000.
  - 1977 Fund: Changed from age-based to service-based rates and slightly increased to reflect recent experience.
  - JRS: Increased for ages 38-65 from 4.0 percent to 7.0 percent to reflect recent experience.
- Marriage Assumption
  - PERF: Changed from 90 percent of members assumed to be married or to have a dependent beneficiary,
     to 75 percent of male members and 60 percent of female members assumed to be married or to have a dependent beneficiary.
  - 1977 Fund: Changed from 90 percent of members assumed to be married or to have a dependent beneficiary, to 80 percent of male members and 50 percent of female members assumed to be married or to have a dependent beneficiary.
- Age Difference Assumption
  - PERF: Changed from male members assumed to be three (3) years older than their spouses and female
    members assumed to be three (3) years younger than their spouses, to male members assumed to be
    three (3) years older than their spouses and female members assumed to be two (2) years younger than
    their spouses.
  - 1977 Fund: Changed from male members assumed to be three (3) years older than their spouses and female members assumed to be three (3) years younger than their spouses, to male members assumed to be three (3) years older than their spouses and female members assumed to be the same age as their spouses.
  - JRS: Changed from males assumed to be three (3) years older than their spouses and female members assumed to be three (3) years younger than their spouses, to male members assumed to be four (4) years older than their spouses and female members assumed to be two (2) years younger than their spouses.
- Annuity Savings Account (ASA) Withdrawal Assumption
  - PERF: Changed from 100 percent of inactive members assumed to withdraw their ASA balances immediately, to 100 percent of inactive non-vested members assumed to withdraw their ASA balances immediately, 50 percent of inactive vested members assumed to withdraw their ASA balances immediately, and 50 percent of inactive vested members assumed to annuitize their ASA balances upon commencement of their employer funded annuity benefit.

#### Changes in Actuarial Methods:

There were no changes in actuarial methods since the June 30, 2011 actuarial valuations.

For the June 30, 2011 actuarial valuations, the INPRS Board approved the following method changes:

- Contribution Rate Smoothing Rules
  - PERF: At the December 16, 2011 meeting, the INPRS Board resolved to discontinue the use of

contribution rate smoothing rules previously in effect. Based on the June 30, 2011 valuation results, the contribution rate (effective July 1, 2012) approved for the State is equal to the True Rate for the State, rounded up to the next tenth of a percent. For Political Subdivisions, the INPRS Board approved to begin migration to a single rate for all PERF employers. For Political Subdivisions contributing less than the Composite Rate (aggregate True Rate equal to 10 percent for fiscal year 2013) during fiscal year 2012, the contribution rate will increase no more than 1.5 percent, to a maximum of the Composite Rate during fiscal year 2013. For Political Subdivisions contributing more than or equal to the Composite Rate during fiscal year 2012, will contribute the Composite Rate during fiscal year 2013.

• 1977 Fund; E,G,&C Plan; PARF: At the December 16, 2011 meeting, the INPRS Board resolved to discontinue the use of contribution rate smoothing rules.

#### Changes in Plan Provisions:

There were no changes in plan provisions since the June 30, 2010 actuarial valuations.

#### Actuarial Cost Method:

For all systems except the LEDB Plan, the actuarial cost method is Entry Age Normal – Level Percent of Payroll. For the LEDB Plan, the actuarial cost method is Traditional Unit Credit.

For all systems except the LEDB Plan, the normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date. For the LEDB Plan, the normal cost is calculated separately for each active member and is equal to actuarial present value of additional benefits expected to be accrued during the year following the valuation date. The actuarial accrued liability on any valuation date is the actuarial present value of the benefits earned for service prior to the valuation date.

Gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 30-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 30-year period. The purpose of the method is to give a smooth progression of the costs from year-to-year and, at the same time, provide for an orderly funding of the unfunded liabilities.

#### Asset Valuation Method:

Actuarial Value of Assets is equal to a four-year smoothing of gains and losses on the Market Value of Assets subject to a 20 percent corridor. Accordingly, the Actuarial Value of Assets is limited to no more than 20 percent greater than or 20 percent less than the Market Value of Assets.

Summary of Actuarial Assumptions and Methods, continued as of June 30, 2012

### Public Employees' Retirement Fund June 30, 2012 Actuarial Valuation

#### **Economic Assumptions**

Interest Rate / Investment Return:

6.75 percent (net of administrative and investment expenses)

Cost of Living Increases:

1.0 percent per year in retirement

Future Salary Increases:

Based on 2005-2010 experience. Illustrative rates shown below:

Age	Inflation	Productivity, Merit and Promotion	Total Individual Salary Growth
<31	3.00%	1.50%	4.50%
31-45	3.00	1.00	4.00
46-60	3.00	0.50	3.50
> = 61	3.00	0.25	3.25

Inflation:

3.0 percent per year

#### **Demographic Assumptions**

Mortality (Healthy and Disabled):

Retirement:

2013 IRS Static Mortality projected five (5) years with Scale AA
Based on PERF experience 2005-2010. Illustrative rates shown below:

	Service					
Age	10	15	20	30	31+	
50	-%	4%	4%	4%	4%	
55	-	7	7	12	7	
60	-	10	10	10	10	
65	30	30	30	30	30	
70	25	25	25	25	25	
75+	100	100	100	100	100	

Termination:

Select and ultimate tables based on 2005-2010 experience.

Illustrative rates shown below:

State (Male)

Earnings < \$20,000

_	Service					
Age	0	1	2	3	4	<b>5</b> +
20	57%	40%	23%	19%	17%	13%
30	56	34	21	17	15	11
40	55	29	18	15	13	9
50	55	24	15	13	11	6
60+	55	20	12	10	9	4

as of June 30, 2012

#### Public Employees' Retirement Fund June 30, 2012 Actuarial Valuation

State (Male)				Servi	ice		
Earnings > = \$20,000	Age	0	1	2	3	4	5+
-	20	43%	26%	13%	10%	9%	7%
	30	39	20	12	9	8	6
	40	36	16	11	8	7	5
	50	36	14	9	7	7	4
	60 +	37	13	8	6	6	3
State (Female)				Serv	vice		
Earnings < \$20,000	Age	0	1	2	3	4	5+
	20	57%	40%	26%	26%	21%	16%
	30	54	36	23	23	19	14
	40	54	32	20	19	16	11
	50	54	29	17	15	13	8
	60+	54	25	15	11	11	6
State (Female)				Serv	vice		
Earnings > = \$20,000	Age	0	1	2	3	4	5+
	20	43%	25%	14%	14%	11%	8%
	30	36	22	13	12	10	7
	40	35	19	12	10	9	6
	50	35	17	10	9	7	5
	60+	36	16	9	7	6	4
Political Subdivisions (Male)				Serv	ice		
Earnings < \$20,000	Age	0	1	2	3	4	5+
,	20	33%	25%	13%	12%	10%	7%
	30	29	21	11	10	9	6
	40	28	17	10	8	8	5
	50	26	14	8	7	6	4
	60+	25	11	6	5	5	3
Political Subdivisions (Male)				Serv	ice		
Earnings > = \$20,000	Age	0	1	2	3	4	5+
<u> </u>	20	30%	19%	7%	7%	5%	4%
	30	22	14	7	6	5	4
	40	22	11	6	5	4	3
	50	21	10	5	5	4	3
	60+	20	9	4	4	3	2

as of June 30, 2012

#### Public Employees' Retirement Fund June 30, 2012 Actuarial Valuation

Political Subdivisions (Female)

Earnings < \$20,000

_	Service					
Age	0	1	2	3	4	5+
20	36%	30%	16%	12%	11%	8%
30	32	25	14	11	10	7
40	32	21	12	10	9	5
50	31	18	9	8	7	4
60+	30	14	7	6	5	3

Political Subdivisions (Female)

Earnings > = \$20,000

	Service						
Age	0	1	2	3	4	<b>5</b> +	
20	31%	21%	10%	8%	7%	4%	
30	24	16	9	7	6	4	
40	23	14	8	6	5	3	
50	23	12	7	6	5	3	
60+	23	11	6	5	4	2	

Disability:

Based on 2000 - 2005 experience for males and 1995 - 2000 experience for females.

Recent experience has been consistent.

Illustrative rates shown below:

Age	Male	Female
20	0.007%	0.005%
30	0.021	0.016
40	0.065	0.050
50	0.201	0.156
60	0.622	0.488
70	0.100	0.100
80	0.000	0.000

Spouse/Beneficiary:

75 percent of male members and 60 percent of female members are assumed to be married and or to have a dependent beneficiary. Male members are assumed to be three (3) years older than their spouses and female members are assumed to be two (2) years younger than their spouses.

### Public Employees' Retirement Fund June 30, 2012 Actuarial Valuation

ASA Withdrawal:

For active members who are expected to terminate prior to becoming vested (before 10 years of service),100 percent of such members are assumed to withdraw their ASA balance immediately upon termination. For all other active members, it is assumed that 50 percent of such members withdraw their ASA balance immediately upon termination and 50 percent of such members annuitize their ASA balance upon commencement of their employer funded annuity benefit.

For inactive members who are not vested, 100 percent of such members are assumed to withdraw their ASA balance immediately. For inactive members who are vested, it is assumed that 50 percent of such members withdraw their ASA balance immediately and 50 percent of such members annuitize their ASA balance upon commencement of their employer funded annuity benefit.

Summary of Actuarial Assumptions and Methods, continued as of June 30, 2012

### Teachers' Retirement Fund June 30, 2012 Actuarial Valuation

#### **Economic Assumptions**

Interest Rate / Investment Return: 6.75 percent (net of administrative and investment expenses)

Cost of Living Increases:

1.0 percent per year in retirement

Future Salary Increases: Based on TRF 2007-2011 experience. Illustrative rates shown below:

Years of Service	Inflation	Merit & Seniority	l otal Individual Salary Growth
1	3.00%	9.50%	12.50%
5	3.00	4.00	7.00
10	3.00	2.75	5.75
15	3.00	1.50	4.50
20	3.00	0.25	3.25
25	3.00	_	3.00
30	3.00	_	3.00
35	3.00	_	3.00
40	3.00	_	3.00

Inflation: 3.0 percent per year

#### **Demographic Assumptions**

Mortality (Healthy and Disabled): 2013 IRS Static Mortality projected five (5) years with Scale AA

Retirement: Based on TRF 2007-2011 experience. Sample probabilities are

shown on the next page:

as of June 30, 2012

#### Teachers' Retirement Fund June 30, 2012 Actuarial Valuation

Retirement,	

Regula	r Retirement	Rule of 85 Retirement		Early Retirement		
Age	Probability	Age	Probability	Age	Probability	
				50-53	2.0%	
				54	5.0	
		55	10.0%	55	5.0	
		56	10.0	56	5.0	
		57	10.0	57	5.0	
		58	12.5	58	5.0	
		59	15.0	59	10.0	
60	17.5%	60	17.5			
61	20.0	61	20.0			
62	25.0	62	25.0			
63	25.0	63	25.0			
64	25.0	64	25.0			
65	30.0	65	30.0			
66	30.0	66	30.0			
67	30.0	67	30.0			
68	30.0	68	30.0			
69	30.0	69	30.0			
70	100.0	70	100.0			

Termination:

Based on TRF 2007-2011 experience. Sample probabilities are shown below:

	Service Based	<u> </u>	Age Based <sup>1</sup>			
Years of Service	Male	Female	Attained Age	Male	Female	
0	35.0%	35.0%	25	2.0%	3.5%	
1	14.0	14.0	30	2.0	3.5	
2	11.0	11.0	35	2.0	3.0	
3	8.0	9.0	40	2.0	2.0	
4	6.0	8.0	45	2.0	2.0	
5	4.5	7.0	50	2.0	2.0	
6	4.0	6.0	55	2.0	2.0	
7	4.0	5.0	60	2.0	2.0	
8	3.5	4.5				
9	3.5	4.0				

<sup>&</sup>lt;sup>1</sup>Age-based rates apply only if 10 or more years of service.

### Teachers' Retirement Fund June 30, 2012 Actuarial Valuation

Disability:

as of June 30, 2012

Based on TRF 2007-2011 experience. Sample probabilities are shown below:

Age	Male	Female
25	0.01%	0.01%
30	0.01	0.01
35	0.01	0.01
40	0.01	0.01
45	0.02	0.02
50	0.05	0.05
55	0.09	0.09
60	0.10	0.10

Spouse/Beneficiary:

100 percent of active and deferred vested members are assumed to be married.

Male spouses are assumed to be three (3) years older than female spouses.

as of June 30, 2012

#### 1977 Police Officers' and Firefighters' Pension and Disability Fund June 30, 2012 Actuarial Valuation

#### **Economic Assumptions**

Interest Rate / Investment Return: 6.75 percent (net of administrative and investment expenses)

Interest on Member Contributions: 5.5 percent per year

Cost of Living Increases: 2.25 percent per year in retirement

Future Salary Increases: 3.25 percent per year Inflation: 3.0 percent per year

#### **Demographic Assumptions**

Mortality (Healthy and Disabled): 2013 IRS Static Mortality projected five (5) years with Scale AA

Based on 2005-2010 experience. Illustrative rates shown below: Retirement:

Ages	Service < 32	Service > = 32
45-51	10%	100%
52-57	10	20
58-61	15	20
62-64	20	20
65-69	50	50
70 +	100	100

Termination: Based on 2005-2010 experience. Illustrative rates shown below:

Service	Rate	Service	Rate
0	40.0%	7-9	2.0%
1	20.0	10-14	1.5
2	5.0	15-19	1.0
3	4.0	20+	1.5
4	3.5		
5	3.0		
6	2.5		

Disability: Based on 2005-2010 experience. Illustrative rates shown below:

Age	Rate
20	0.000%
25	0.075
30	0.150
35	0.200
40	0.400
45 +	0.700

### 1977 Police Officers' and Firefighters' Pension and Disability Fund June 30, 2012 Actuarial Valuation

Spouse/Beneficiary: 80 percent of male members and 50 percent of female members are

assumed to be married or to have a dependent beneficiary. Male members are assumed to be three (3) years older than females and

female members are assumed to be the same age as males.

Disability Retirement: For members hired after 1989 that become disabled, impairments are

assumed to be 45 percent Class 1 (at 65 percent of salary), 10 percent Class 2 (at 50 percent of salary), and 45 percent Class 3 (at

36 percent of salary).

Pre-Retirement Death: Of active member deaths, 10 percent are assumed to be in the line of

duty and 90 percent are other than in the line of duty. Additionally, all deaths among retired and disabled members are other than in line

of duty.

as of June 30, 2012

#### Judges' Retirement System June 30, 2012 Actuarial Valuation

#### **Economic Assumptions**

Interest Rate / Investment Return: 6.75 percent (net of administrative and investment expenses)

4.0 percent per year in deferral and retirement Cost of Living Increases:

Future Salary Increases: 4.0 percent per year Inflation: 3.0 percent per year

#### **Demographic Assumptions**

Mortality (Healthy and Disabled): 2013 IRS Static Mortality projected five (5) years with Scale AA

Based on 2005-2010 experience. Rates shown below: Retirement:

Age	Rate	Age	Rate	
55-61	20%	65	50%	_
62	25	66-74	30	
63	15	75 +	100	
64	10			

Termination: Based on 2005-2010 experience. Rates shown below:

Age	Rate
20-37	4%
38-65	7
66+	4

1964 OASDI Table. Illustrative rates shown below: Disability:

Age	Rate
20	0.060%
25	0.085
30	0.110
35	0.147
40	0.220
45	0.360
50	0.606
55	1.009
60	1.627
65+	0.000

### Judges' Retirement System June 30, 2012 Actuarial Valuation

Spouse/Beneficiary:

90 percent of members are assumed to be married or to have a dependent beneficiary. Male members are assumed to be four (4) years older than their spouses and female members are assumed to be two (2) years younger than their spouses.

as of June 30, 2012

State Excise Police, Gaming Agent, Gaming Control Officer and Conservation Enforcement Officers' Retirement Plan June 30, 2012 Actuarial Valuation

#### **Economic Assumptions**

Interest Rate / Investment Return: 6.75 percent (net of administrative and investment expenses)

Cost of Living Increases: 1.0 percent per year in retirement

Future Salary Increases: 3.25 percent per year Inflation: 3.0 percent per year

#### **Demographic Assumptions**

Mortality (Healthy and Disabled): 2013 IRS Static Mortality projected five (5) years with Scale AA

Retirement: Based on 2005 - 2010 experience. Illustrative rates shown below:

Age	Rate	Age	Rate
45	3%	54	4%
46-49	2	55-59	15
50	3	60-64	20
51-52	2	65 +	100
53	3		

Termination: Sarason T-1 Table. Illustrative rates shown below:

Age	Rate
20	5.4384%
25	4.8948
30	3.7020
35	2.3492
40	1.1283
45	0.2653
50 +	0.0000

as of June 30, 2012

State Excise Police, Gaming Agent, Gaming Control Officer and Conservation Enforcement Officers' Retirement Plan June 30, 2012 Actuarial Valuation

Disability:

150 percent of 1964 OASDI Table. Illustrative rates shown below:

Age	Rate
20	0.0900%
25	0.1275
30	0.1650
35	0.2205
40	0.3300
45	0.5400
50	0.9090
55	1.5135
60	2.4405
65+	0.0000

Spouse/Beneficiary:

100 percent of members are assumed to be married or to have a dependent beneficiary. Males are assumed to be five (5) years older than females.

as of June 30, 2012

#### Prosecuting Attorneys' Retirement Fund June 30, 2012 Actuarial Valuation

#### **Economic Assumptions**

Interest Rate / Investment Return: 6.75 percent (net of administrative and investment expenses)

Interest on Member Contributions: 5.5 percent per year

Cost of Living Increases: N/A

Future Salary Increases: 4.0 percent per year Inflation: 3.0 percent per year

#### **Demographic Assumptions**

Mortality (Healthy and Disabled): 2013 IRS Static Mortality projected five (5) years with Scale AA

Retirement: Based on 2005 - 2010 experience. Rates shown below:

Age	Rate
62	20%
63	20
64	20
65	100

Termination: 10 percent per year for all members prior to retirement eligibility.

Disability: Illustrative rates shown below:

Age	Male	Female
20	0.0067%	0.0050%
30	0.0208	0.0158
40	0.0646	0.0496
50	0.2005	0.1556
60	0.6220	0.4881
70	0.1000	0.1000
71+	0.0000	0.0000

Spouse/Beneficiary: 90 percent of participants are assumed either to be married or to

have a dependent beneficiary.

Males are assumed to be three (3) years older than their spouses.

as of June 30, 2012

#### Legislators' Defined Benefit Plan June 30, 2012 Actuarial Valuation

#### **Economic Assumptions**

Interest Rate / Investment Return: 6.75 percent (net of administrative and investment expenses)

Cost of Living Increases: 1.0 percent per year in retirement

Future Salary Increases: 3.0 percent per year Inflation: 3.0 percent per year

#### **Demographic Assumptions**

Mortality (Healthy and Disabled): 2013 IRS Static Mortality projected five (5) years with Scale AA

Retirement: Retirement rates based on actual experience of current retirees.

Illustrative rates shown below:

Age	Rate
55	10%
56-57	8
58-61	2
62-64	5
65 +	100

Sarason T-2 Tables. Illustrative rates shown below: Termination:

Age	Rate
20	5.4384%
25	5.2917
30	5.0672
35	4.6984
40	3.5035
45	1.7686
50	0.4048
55 +	0.0000

#### Legislators' Defined Benefit Plan June 30, 2012 Actuarial Valuation

Disability:

75 percent of 1964 OASDI Tables. Illustrative rates shown below:

Age	Rate
20	0.045%
25	0.064
30	0.083
35	0.111
40	0.165
45	0.270
50	0.454
55	0.757
60	1.220
65 +	0.000

Spouse/Beneficiary:

90 percent of members are assumed to be married or to have a dependent beneficiary.

Males are assumed to be three (3) years older than females.

# ACTUARIAL SECTION Summary of INPRS Funded Status

#### Actuarial Valuations as of June 30, 2012 and June 30, 2011

(dollars in millions)											
	Actuaria	l Valuation as	s of June 30,	2012	Actuaria	al Valuation a	s of June 30,	2011			
Defined Benefit Retirement Plan	Actuarial Accrued Liability	Accrued Value of		Actuarial Funded Status	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability	Actuarial Funded Status			
Public Employees' Retirement Fund	\$ 15,784.2	\$ 12,088.2	\$ 3,696.0	76.6%	\$ 14,913.1	\$ 12,000.6	\$ 2,912.5	80.5%			
Teachers' Retirement Fund (TRF) – 1996 Account	4,338.3	3,936.4	401.9	90.7	3,996.8	3,664.6	332.2	91.7			
1977 Police Officers' and Firefighters' Pension and Disability Fund	4,122.4	3,786.6	335.8	91.9	3,639.0	3,593.8	45.2	98.8			
Judges' Retirement System <sup>1</sup>	437.9	260.1	177.8	59.4	400.3	248.6	151.7	62.1			
State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers' Retirement Plan <sup>1</sup>	113.3	76.0	37.3	67.1	101.5	72.6	28.9	71.5			
Prosecuting Attorneys' Retirement Fund <sup>1</sup>	56.1	27.5	28.6	49.0	53.3	25.7	27.6	48.2			
Legislators' Defined Benefit Plan	4.5	3.4	1.1	75.0	4.6	3.6	1.0	78.6			
Total INPRS ( <u>Excluding</u> TRF Pre-1996 Account)	\$ 24,856.7	\$ 20,178.2	\$ 4,678.5	81.2%	\$ 23,108.6	\$ 19,609.5	\$ 3,499.1	84.9%			
Teachers' Retirement Fund – Pre-1996 Account (Pay-As-You-Go)	16,522.0	4,978.1	11,543.9	30.1	16,318.4	5,227.4	11,091.0	32.0			
Total INPRS ( <u>Including</u> TRF Pre-1996 Account)	\$ 41,378.7	\$ 25,156.3	\$16,222.4	60.8%	\$ 39,427.0	\$ 24,836.9	\$ 14,590.1	63.0%			
Memo: Total Teachers' Retirement Fund	\$ 20,860.3	\$ 8,914.5	\$11,945.8	42.7%	\$ 20,315.2	\$ 8,892.0	\$ 11,423.2	43.8%			

<sup>&</sup>lt;sup>1</sup>In accordance with Legislation passed during March 2012, the State appropriated additional monies during FY2013 to reach a funded status of 80.0 percent based on the actuarial valuations as of June 30, 2012, for the following three (3) retirement plans:

Judges' Retirement System -- \$90.2 million

State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers' Retirement Plan - \$14.6 million Prosecuting Attorneys' Retirement Fund -- \$17.4 million

# ACTUARIALS I Sensitivity of Actuarial Valuations to Changes in

Assumed Investment Return - Interest Rate

#### Actuarial Valuations as of June 30, 2012

INPRS Management and the INPRS Board continually monitor the Investment Return - Interest Rate assumption on an annual basis and make changes in this assumption as appropriate. The INPRS Board last changed the assumption in June 2012, reducing the assumption from 7.0 percent to 6.75 percent.

To illustrate the importance of the Investment Return - Interest Rate assumption, which is used to discount the actuarial liabilities of the INPRS Defined Benefit retirement plans, the Unfunded Actuarial Accrued Liability and Funded Status are shown below at 6.75 percent (current assumption), 7.5 percent (0.75 percent increase), and 8.0 percent (1.25 percent increase).

(dollars in millions)	Current Ass (6.75	•	0.75% lı (7.5		1.25% Increase (8.0%)		
Defined Benefit Retirement Plan	Unfunded Actuarial Accrued Liability	Funded Status	Unfunded Actuarial Accrued Liability <sup>1</sup>	Funded Status	Unfunded Actuarial Accrued Liability <sup>1</sup>	Funded Status	
PERF	\$ 3,696.0	76.6%	\$ 2,601.8	82.3%	\$ 1,946.8	86.1%	
TRF - 1996 Account	401.9	90.7	13.9	99.6	(220.1)	105.9	
1977 Fund	335.8	91.9	(102.3)	102.8	(358.7)	110.5	
JRS	177.8	59.4	142.6	64.6	121.6	68.1	
E,G,&C Plan	37.3	67.1	27.5	73.4	21.6	77.9	
PARF	28.6	49.0	24.1	53.3	21.4	56.2	
LEDB Plan	1.1	75.0	0.9	79.1	0.7	81.9	
Total INPRS (Excluding TRF Pre-1996 Account)	\$ 4,678.5	81.2%	\$ 2,708.5	88.2%	\$ 1,533.3	92.9%	
TRF - Pre-1996 Account (Pay-As-You-Go)	11,543.9	30.1	10,567.4	32.0	9,953.1	33.3	
Total INPRS (Including TRF Pre-1996 Account)	\$ 16,222.4	60.8%	\$13,275.9	65.5%	\$11,486.4	68.7%	
Memo: Total TRF	\$ 11,945.8	42.7%	\$10,581.3	45.7%	\$ 9,733.0	47.8%	

<sup>&</sup>lt;sup>1</sup>( ) = Funding Surplus

PERF = Public Employees' Retirement Fund

TRF = Teachers' Retirement Fund

1977 Fund = 1977 Police Officers' and Firefighters' Pension and Disability Fund

JRS = Judges' Retirement System

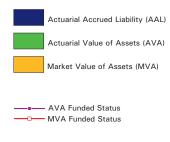
E,G,&C Plan = State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers' Retirement Plan

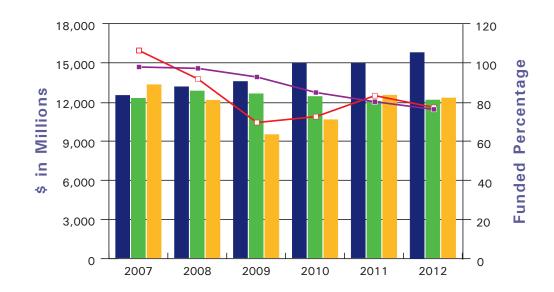
PARF = Prosecuting Attorneys' Retirement Fund

LEDB Plan = Legislators' Defined Benefit Plan

Historical Summary of Actuarial Valuation Results by Retirement Plan

#### Public Employees' Retirement Fund

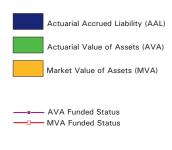


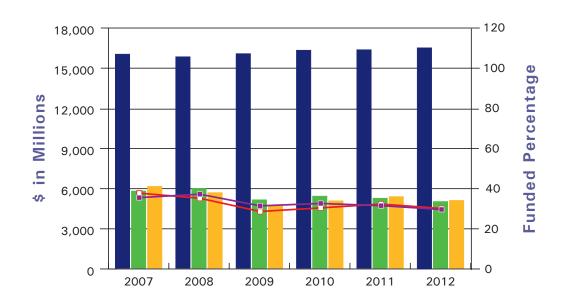


(dollars in millions)	2007	2008	2009	2010	2011	2012
Actuarial Accrued Liability (AAL)	\$12,439.8	\$13,103.2	\$13,506.2	\$14,506.1	\$ 14,913.1	\$ 15,784.2
Actuarial Value of Assets (AVA)	\$12,220.9	\$12,780.1	\$12,569.3	\$12,357.2	\$ 12,000.6	\$ 12,088.2
Unfunded Liability (AAL - AVA)	\$ 218.9	\$ 323.1	\$ 936.9	\$ 2,148.9	\$ 2,912.5	\$ 3,696.0
AVA Funded Status (AVA / AAL)	98.2%	97.5%	93.1%	85.2%	80.5%	76.6%
Market Value of Assets (MVA)	\$13,262.4	\$12,073.5	\$ 9,442.3	\$10,581.3	\$ 12,461.4	\$ 12,243.8
MVA Funded Status (MVA / AAL)	106.6%	92.1%	69.9%	72.9%	83.6%	77.6%

Historical Summary of Actuarial Valuation Results by Retirement Plan, continued

#### Teachers' Retirement Fund - Pre-1996 Account

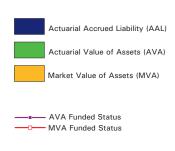


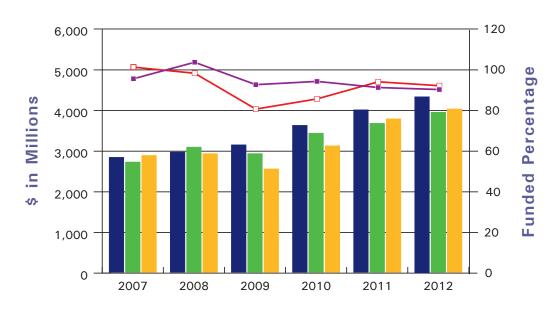


(dollars in millions)	2007	2008	2009	2010	2011	2012
Actuarial Accrued Liability (AAL)	\$15,988.3	\$15,792.3	\$16,027.1	\$16,282.1	\$ 16,318.4	\$ 16,522.0
Actuarial Value of Assets (AVA)	\$ 5,763.5	\$ 5,954.0	\$ 5,109.1	\$ 5,382.4	\$ 5,227.4	\$ 4,978.1
Unfunded Liability (AAL - AVA)	\$10,224.8	\$ 9,838.3	\$10,918.0	\$10,899.7	\$ 11,091.0	\$ 11,543.9
AVA Funded Status (AVA / AAL)	36.0%	37.7%	31.9%	33.1%	32.0%	30.1%
Market Value of Assets (MVA)	\$ 6,106.4	\$ 5,644.2	\$ 4,655.9	\$ 5,029.5	\$ 5,345.9	\$ 5,058.9
MVA Funded Status (MVA / AAL)	38.2%	35.7%	29.1%	30.9%	32.8%	30.6%

Historical Summary of Actuarial Valuation Results by Retirement Plan, continued

#### Teachers' Retirement Fund - 1996 Account

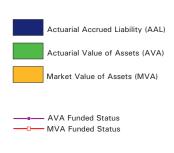


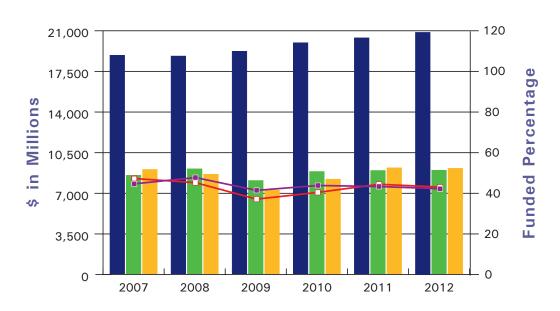


(dollars in millions)	2007	2008	2009	2010	2011	2012
Actuarial Accrued Liability (AAL)	\$ 2,827.5	\$ 2,957.8	\$ 3,135.5	\$ 3,614.6	\$ 3,996.8	\$ 4,338.3
Actuarial Value of Assets (AVA)	\$ 2,713.0	\$ 3,080.1	\$ 2,920.7	\$ 3,422.6	\$ 3,664.6	\$ 3,936.4
Unfunded Liability (AAL - AVA)  AVA Funded Status (AVA / AAL)	\$ 114.5 96.0%	\$ (122.3) 104.1%	\$ 214.8 93.1%	\$ 192.0 94.7%	\$ 332.2 91.7%	\$ 401.9 90.7%
Market Value of Assets (MVA) MVA Funded Status (MVA / AAL)	\$ 2,874.4 101.7%	\$ 2,919.8 98.7%	\$ 2,543.2 81.1%	\$ 3,111.3 86.1%	\$ 3,775.8 94.5%	\$ 4,018.2 92.6%

Historical Summary of Actuarial Valuation Results by Retirement Plan, continued

#### Teachers' Retirement Fund - Total

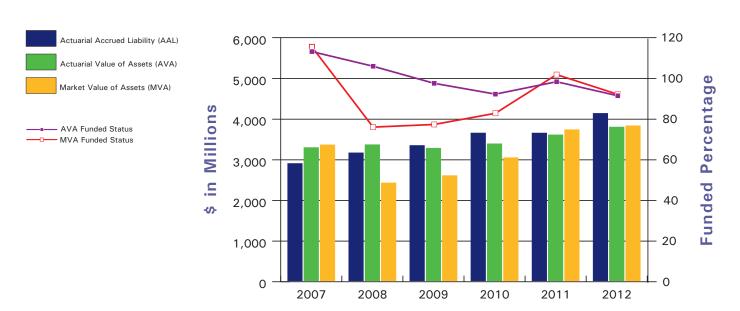




(dollars in millions)	2007	2008	2009	2010	2011	2012
Actuarial Accrued Liability (AAL) Actuarial Value of Assets (AVA)	\$18,815.8	\$18,750.1	\$ 19,162.6	\$19,896.7	\$ 20,315.2	\$ 20,860.3
	\$8,476.5	\$ 9,034.1	\$ 8,029.8	\$8,805.0	\$ 8,892.0	\$ 8,914.5
Unfunded Liability (AAL - AVA) AVA Funded Status (AVA / AAL)	\$10,339.3	\$ 9,716.0	\$11,132.8	\$11,091.7	\$ 11,423.2	\$ 11,945.8
	45.1%	48.2%	41.9%	44.3%	43.8%	42.7%
Market Value of Assets (MVA)	\$ 8,980.8	\$ 8,564.0	\$ 7,199.1	\$ 8,140.8	\$ 9,121.7	\$ 9,077.1
MVA Funded Status (MVA / AAL)	47.7%	45.7%	37.6%	40.9%	44.9%	43.5%

Historical Summary of Actuarial Valuation Results by Retirement Plan, continued

### 1977 Police Officers' and Firefighters' Pension and Disability Fund

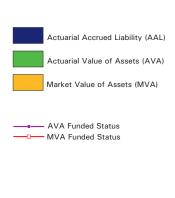


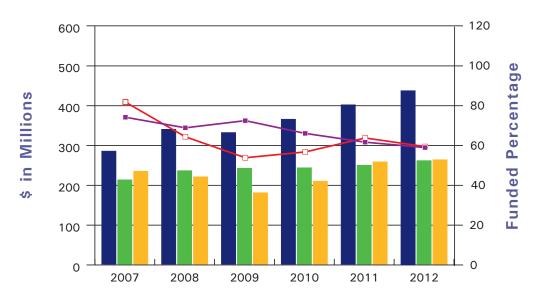
Fiscal	Vear	Ended	June	30

(dollars in millions)	20071	2008¹	2009	2010	2011	2012
Actuarial Accrued Liability (AAL)	\$ 2,889.3	\$ 3,150.8	\$ 3,332.7	\$ 3,639.6	\$ 3,639.0	\$ 4,122.4
Actuarial Value of Assets (AVA)	\$ 3,281.5	\$ 3,352.7	\$ 3,265.6	\$ 3,374.4	\$ 3,593.8	\$ 3,786.6
Unfunded Liability (AAL - AVA)  AVA Funded Status (AVA / AAL)	\$ (392.2) 113.6%	\$ (201.9) 106.4%	\$ 67.1 98.0%	\$ 265.2 92.7%	\$ 45.2 98.8%	\$ 335.8 91.9%
Market Value of Assets (MVA) MVA Funded Status (MVA / AAL)	\$ 3,347.7 115.9%	\$ 2,410.8 76.5%	\$ 2,591.7 77.8%	\$ 3,033.3 83.3%	\$ 3,721.4 102.3%	\$ 3,817.0 92.6%

Historical Summary of Actuarial Valuation Results by Retirement Plan, continued

#### Judges' Retirement System<sup>2</sup>





(dollars in millions)	2007	2008	2009	2010	2011	2012
Actuarial Accrued Liability (AAL)	\$ 284.0	\$ 338.8	\$ 330.6	\$ 364.1	\$ 400.3	\$ 437.9
Actuarial Value of Assets (AVA)	\$ 211.8	\$ 234.9	\$ 241.0	\$ 242.1	\$ 248.6	\$ 260.1
Unfunded Liability (AAL - AVA)  AVA Funded Status (AVA / AAL)	\$ 72.2 74.6%	\$ 103.9 69.3%	\$ 89.6 72.9%	\$ 122.0 66.5%	\$ 151.7 62.1%	\$ 177.8 59.4%
Market Value of Assets (MVA)  MVA Funded Status (MVA / AAL)	\$ 233.4 82.2%	\$ 219.4 64.8%	\$ 179.4 54.3%	\$ 208.4 57.2%	\$ 257.0 64.2%	\$ 262.3 59.9%

<sup>&</sup>lt;sup>2</sup>In accordance with Legislation passed during March 2012, the State appropriated additional monies during FY2013 to reach a funded status of 80.0% based on the actuarial valuations as of June 30, 2012, for the following three (3) retirement plans:

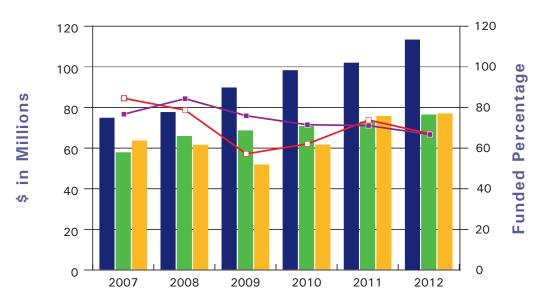
Judges' Retirement System – \$90.2 million

State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers' Retirement Plan – \$14.6 million Prosecuting Attorneys' Retirement Fund – \$17.4 million

Historical Summary of Actuarial Valuation Results by Retirement Plan, continued

State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers' Retirement Plan<sup>2</sup>





(dollars in millions)	2007	2008	2009	2010	2011	2012
Actuarial Accrued Liability (AAL)	\$ 74.4	\$ 77.2	\$ 89.3	\$ 97.8	\$ 101.5	\$ 113.3
Actuarial Value of Assets (AVA)	\$ 57.4	\$ 65.4	\$ 68.2	\$ 70.3	\$ 72.6	\$ 76.0
Unfunded Liability (AAL - AVA) AVA Funded Status (AVA / AAL)	\$ 17.0 77.1%	\$ 11.8 84.7%	\$ 21.1 76.3%	\$ 27.5 71.9%	\$ 28.9 71.5%	\$ 37.3 67.1%
Market Value of Assets (MVA)	\$ 63.2	\$ 61.1	\$ 51.4	\$ 61.2	\$ 75.3	\$ 76.5
MVA Funded Status (MVA / AAL)	84.9%	79.1%	57.6%	62.5%	74.2%	67.5%

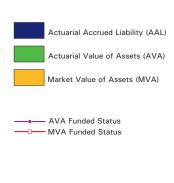
<sup>&</sup>lt;sup>2</sup>In accordance with Legislation passed during March 2012, the State appropriated additional monies during FY2013 to reach a funded status of 80.0% based on the actuarial valuations as of June 30, 2012, for the following three (3) retirement plans:

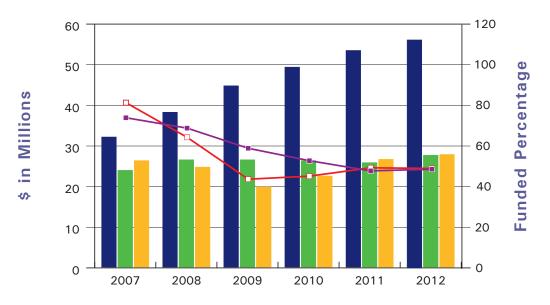
Judges' Retirement System – \$90.2 million

State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers' Retirement Plan – \$14.6 million Prosecuting Attorneys' Retirement Fund – \$17.4 million

Historical Summary of Actuarial Valuation Results by Retirement Plan, continued

#### Prosecuting Attorneys' Retirement Fund<sup>2</sup>





#### Fiscal Year Ended June 30

(dollars in millions)	2007	2008	2009	2010	2011	2012
Actuarial Accrued Liability (AAL)	\$ 32.0	\$ 38.1	\$ 44.6	\$ 49.2	\$ 53.3	\$ 56.1
Actuarial Value of Assets (AVA)	\$ 23.8	\$ 26.4	\$ 26.4	\$ 26.2	\$ 25.7	\$ 27.5
Unfunded Liability (AAL - AVA)  AVA Funded Status (AVA / AAL)	\$ 8.2 74.3%	\$ 11.7 69.2%	\$ 18.2 59.3%	\$ 23.0 53.2%	\$ 27.6 48.2%	\$ 28.6 49.0%
Market Value of Assets (MVA)	\$ 26.2	\$ 24.6	\$ 19.7	\$ 22.4	\$ 26.5	\$ 27.7
MVA Funded Status (MVA / AAL)	81.7%	64.7%	44.1%	45.6%	49.7%	49.4%

<sup>&</sup>lt;sup>2</sup>In accordance with Legislation passed during March 2012, the State appropriated additional monies during FY2013 to reach a funded status of 80.0% based on the actuarial valuations as of June 30, 2012, for the following three (3) retirement plans:

Judges' Retirement System – \$90.2 million

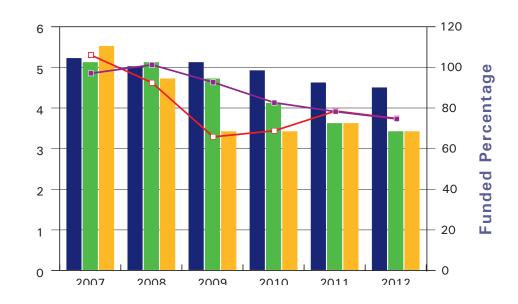
State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers' Retirement Plan – \$14.6 million Prosecuting Attorneys' Retirement Fund – \$17.4 million

Historical Summary of Actuarial Valuation Results by Retirement Plan, continued

\$ in Millions

### Legislators' Defined Benefit Plan





	Fiscal Year Ended June 30										
(dollars in millions)		2007		2008		2009		2010	2011		2012
Actuarial Accrued Liability (AAL)	\$	5.2	\$	5.0	\$	5.1	\$	4.9	\$ 4.6	\$	4.5
Actuarial Value of Assets (AVA)	\$	5.1	\$	5.1	\$	4.7	\$	4.1	\$ 3.6	\$	3.4
Unfunded Liability (AAL - AVA) AVA Funded Status (AVA / AAL)	\$	0.1 97.4%	\$	(0.1) 101.6%	\$	0.4 93.0%	\$	0.8 83.0%	\$ 1.0 78.6%	\$	1.1 75.0%
Market Value of Assets (MVA) MVA Funded Status (MVA / AAL)	\$	5.5 106.4%	\$	4.7 92.8%	\$	3.4 66.2%	\$	3.4 69.2%	\$ 3.6 78.9%	\$	3.4 75.2%

# ACTUARIAL SECTION Analysis of Financial Experience

(dollars in thousands)

	ıin		

Defined Benefit Retirement Plans	June 30, 2011 UAAL <sup>1</sup>	Actuarial Value of Assets	Actuarial Accrued Liabilities	Amortization of Existing Bases	Actuarial Assumption & Methodology Changes <sup>2</sup>	June 30, 2012 UAAL <sup>1</sup>
Public Employees' Retirement Fund	\$ 2,912,561	\$ 486,424	\$ (87,831)	\$ (34,376)	\$ 419,237	\$ 3,696,015
Teachers' Retirement Fund Pre-1996 Account 1996 Account Total Teachers' Retirement Fund	11,091,001 <u>332,182</u> 11,423,183	111,026 <u>108,152</u> 219,178	(46,791) (24,911) (71,702)	76,526 <u>(10,975)</u> 65,551	312,146 <u>(2,594)</u> 309,552	11,543,908 <u>401,854</u> 11,945,762
1977 Police Officers' and Firefighters' Pension and Disability Fund	45,169	103,601	544	(766)	187,293	335,841
Judges' Retirement System	151,650	17,655	708	(2,089)	9,834	177,758
State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers' Retirement Plan	28,934	2,723	2,517	(394)	3,496	37,276
Prosecuting Attorneys' Retirement Fund	27,601	1,794	(2,404)	(367)	1,955	28,579
Legislators' Defined Benefit Plan	987	258	(175)	(28)	84	1,126

<sup>&</sup>lt;sup>1</sup>UAAL: Unfunded Actuarial Accrued Liabilities

<sup>&</sup>lt;sup>2</sup>Actuarial Assumption and Methodology Assumption Changes include:
For all plans, the change in the Interest Rate / Investment Return assumption from 7.0 percent to 6.75 percent.
For all plans, the change in the Mortality assumption from the 2008 IRS Static Mortality Table projected forward five (5) years to the 2013 IRS Static Mortality Table projected forward five (5) years. For PERF, TRF, and the E,G,&C Plan, a one-time payment (i.e., 13th Check) was paid to benefit recipients in September 2012 in lieu of the 1.0 percent

COLA assumption.

For TRF, changes to the Future Salary Increase, Retirement, and Termination assumptions to reflect recent experience.

For the 1977 Fund, a 2.8 percent COLA was paid to benefit recipients in July 2012, rather than the assumed COLA of 2.25 percent. For the Judges Retirement System, a 2.2 percent COLA was paid to benefit recipients in July 2012, rather than the assumed COLA of 4.0 percent.

For the LEDB Plan, there was no COLA paid to benefit recipients versus than the assumed COLA of 1.0 percent.

(dollars in thousands)

(uollars II	Actuarial Accrued Liabilities						rtion of Actuari		
Fiscal Year Ended June 30	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities	Actuarial Value of Assets	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities
		Put	olic Emp	ployees'	Retire	ment Fu	n d		
2007	\$ 2,707,176	\$ 4,007,389	\$ 5,725,233	\$ 12,439,798	\$12,220,934	100.0%	100.0%	96.2%	98.2%
2008	2,694,331	4,227,366	6,181,524	13,103,221	12,780,116	100.0	100.0	94.8	97.5
2009	2,669,318	4,611,257	6,225,705	13,506,280	12,569,336	100.0	100.0	85.0	93.1
2010	2,780,570	4,931,592	6,793,890	14,506,052	12,357,199	100.0	100.0	68.4	85.2
2011	2,805,023	5,370,786	6,737,338	14,913,147	12,000,586	100.0	100.0	56.8	80.5
2012	2,749,449	5,895,779	7,139,012	15,784,240	12,088,225	100.0	100.0	48.2	76.6
	T	eachers	'Retire	ement Fi	ınd – Pı	re-1996	Account		
2007	\$ 3,016,052	\$ 7,063,889	\$ 5,908,318	\$ 15,988,259	\$ 5,763,508	100.0%	38.9%	0.0%	36.0%
2008	2,613,138	7,244,422	5,934,745	15,792,305	5,953,991	100.0	46.1	0.0	37.7
2009	2,389,886	7,891,346	5,745,861	16,027,093	5,109,086	100.0	34.5	0.0	31.9
2010	2,353,715	8,153,240	5,775,111	16,282,066	5,382,410	100.0	37.1	0.0	33.1
2011	2,015,580	8,776,916	5,525,908	16,318,404	5,227,402	100.0	36.6	0.0	32.0
2012	1,782,353	9,451,792	5,287,870	16,522,015	4,978,107	100.0	33.8	0.0	30.1
		Teache	rs' Reti	irement	Fund –	1996 A	count		
2007	\$ 656,918	\$ 449,452	\$ 1,721,184	\$ 2,827,554	\$ 2,713,051	100.0%	100.0%	93.3%	96.0%
2008	649,840	514,933	1,792,985	2,957,758	3,080,057	100.0	100.0	100.0	104.1
2009	655,843	432,942	2,046,748	3,135,533	2,920,735	100.0	100.0	89.5	93.1
2010	750,575	483,117	2,380,867	3,614,559	3,422,554	100.0	100.0	91.9	94.7
2011	840,341	562,445	2,594,053	3,996,839	3,664,657	100.0	100.0	87.2	91.7
2012	882,942	662,558	2,792,809	4,338,309	3,936,455	100.0	100.0	85.6	90.7
		Tea	achers'	Retirem	ent Fur	ıd – Tot	a I		
2007	\$ 3,672,970	\$ 7,513,341	\$ 7,629,502	\$ 18,815,813	\$ 8,476,559	100.0%	63.9%	0.0%	45.1%
2008	3,262,978	7,759,355	7,727,730	18,750,063	9,034,048	100.0	74.4	0.0	48.2
2009	3,045,729	8,324,288	7,792,609	19,162,626	8,029,821	100.0	59.9	0.0	41.9
2010	3,104,290	8,636,357	8,155,978	19,896,625	8,804,964	100.0	66.0	0.0	44.3
2011	2,855,921	9,339,361	8,119,961	20,315,243	8,892,059	100.0	64.6	0.0	43.8
2012	2,665,295	10,114,350	8,080,679	20,860,324	8,914,562	100.0	61.8	0.0	42.7
197	7 Police	Officer	s' and	Firefigh	ters' Po	ension a	nd Disa	bility	Fund
2006¹	\$ 455,476	\$ 546,628	\$ 1,647,421	\$ 2,649,525	\$ 2,860,512	100.0%	100.0%	100.0%	108.0%
2007¹	498,662	655,827	1,734,806	2,889,295	3,281,480	100.0	100.0	100.0	113.6
2008¹	534,303	765,909	1,850,615	3,150,827	3,352,705	100.0	100.0	100.0	106.4
2009	571,534	793,167	1,967,985	3,332,686	3,265,598	100.0	100.0	96.6	98.0
2010	634,865	859,626	2,145,178	3,639,669	3,374,438	100.0	100.0	87.6	92.7
2011	679,849	970,676	1,988,431	3,638,956	3,593,787	100.0	100.0	97.7	98.8
2012	728,892	1,135,538	2,258,006	4,122,436	3,786,595	100.0	100.0	85.1	91.9
					I				

'As of December 31 instead of June 30.

(dollars in thousands)

,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	rtiiousand	,	Actua	rial Accr	ued Li	abilities								al Accrued by Assets	
Fiscal Year Ended June 30	Active Member Contribut	er		ees and ficiaries	Me (Em Fin	ctive ember iployer anced rtion)		Total Actuarial Accrued Liabilities	Valu	ıarial ıe of sets	Active Member Contributions		rees and eficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities
					Ju	d g e s	'	Retire	m e n	t S	y s t e m ²				
2007	\$ 21	,276	\$ 1	43,645	\$ 1	119,074	\$	283,995	\$ 2	11,747	100.0%	)	100.0%	39.3%	74.6%
2008	22	,243	1	55,177	1	161,329		338,749	2	34,881	100.0		100.0	35.6	69.3
2009	21	,649	1	70,962	1	37,940		330,551	24	40,954	100.0		100.0	35.0	72.9
2010	23	,138	1	82,023	1	158,962		364,123	24	12,143	100.0		100.0	23.3	66.5
2011	24	,359	1	98,797	1	177,118		400,274	24	48,623	100.0		100.0	14.4	62.1
2012	27	,699	2	205,341	2	204,814		437,854	20	60,096	100.0		100.0	13.2	59.4
S t	ate E	хc	ise	Poli	ce,	Gam	in	g Age	nt,	G a m	ing Cor	ıtro	l Off	icer, a	n d
	C	o n s	erv	atio	n E	n f o r	c e	m e n t	Offi	cers	s' Retir	e m e	nt Pl	a n²	
2007	\$ 3	,527	\$	24,606	\$	46,318	\$	74,451	\$!	57,414	100.0%	)	100.0%	63.2%	77.1%
2008	4	,314		28,902		43,961		77,177	(	35,375	100.0		100.0	73.2	84.7
2009	5	,274		35,039		48,983		89,296	(	38,170	100.0		100.0	56.9	76.3
2010	6	,220		36,044		55,598		97,862		70,327	100.0		100.0	50.5	71.9
2011	6	,271		46,695		48,568		101,534		72,599	100.0		100.0	40.4	71.5
2012	6	,532		53,929		52,822		113,283	-	76,007	100.0		100.0	29.4	67.1
			P	rose	c u t	ing 1	A t	torney	s' I	Reti	rement	Fun	d <sup>2</sup>		
2007	\$ 16	,014	\$	3,192	\$	12,846	\$	32,052	\$	23,815	100.0%	,	100.0%	35.9%	74.3%
2008	17	,428		5,173		15,468		38,069	:	26,350	100.0		100.0	24.2	69.2
2009		,239		10,384		15,009		44,632		26,467	100.0		69.6	0.0	59.3
2010		,999		12,557		15,618		49,174		26,166	100.0		41.1	0.0	53.2
2011	21	,592		16,806		14,854		53,252	:	25,651	100.0		24.2	0.0	48.2
2012	23	,406		18,660		14,014		56,080	:	27,501	100.0		21.9	0.0	49.0
				Le	gis	lato	r s	' Defi	n e d	Ben	efit Pla	a n			
2007	\$	Ω	\$	2,432		2,737		5,169		5,035	N/A		100.0%	95.1%	97.4%
2007	<u> </u>	0	•	2,258	•	2,781		5,039		5,120	N/A		100.0	100.0	101.6
2009		0		3,147		1,940		5,087		4,730	N/A		100.0	81.6	93.0
2010		0		3,017		1,892		4,909		4,075	N/A		100.0	55.9	83.0
2011		0		3,037		1,584		4,621		3,634	N/A		100.0	37.7	78.6
2012		0		3,031		1,472		4,503		3,377	N/A		100.0	23.5	75.0
				-		-				•					

<sup>&</sup>lt;sup>2</sup>In accordance with Legislation passed during March 2012, the State appropriated additional monies during FY2013 to reach a funded status of 80.0 percent based on the actuarial valuations as of June 30, 2012, for the following three (3) retirement plans:

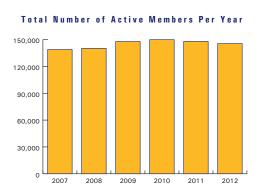
Judges' Retirement System – \$90,187 thousand

State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers' Retirement Plan – \$14,619 thousand Prosecuting Attorneys' Retirement Fund – \$17,363 thousand

#### Public Employees' Retirement Fund

(dollars in thousands - except annual average pay)

Fiscal Year Ended June 30	Active Members	Annual Payroll	Annual Average Pay	Annual Percent Increase/ (Decrease) In Average Pay
2007	138,863	\$4,385,676	\$ 31,583	2.7%
2008	140,146	4,600,354	32,825	3.9
2009	147,792	4,931,423	33,367	1.7
2010	149,877	4,896,013	32,667	(2.1)
2011	147,933	4,818,774	32,574	(0.3)
2012	145,519	4,904,052	33,700	3.5



#### Teachers' Retirement Fund - Pre-1996 Account

(dollars in thousands - except annual average pay)

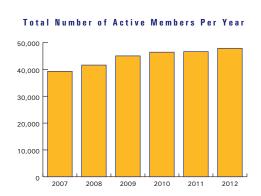
Fiscal Year Ended June 30	Active Members	Annual Payroll	Av	nnual /erage Pay	Annual Percent Increase/ (Decrease) In Average Pay
2007	36,526	\$ 2,376,390	\$	65,060	7.6%
2008	34,628	2,295,816		66,299	1.9
2009	29,297	2,030,484		69,307	4.5
2010	26,439	1,865,102		70,544	1.8
2011	24,710	1,762,750		71,338	1.1
2012	22,688	1,637,066		72,156	1.1



#### Teachers' Retirement Fund - 1996 Account

(dollars in thousands - except annual average pay)

Fiscal Year Ended June 30	Active Members	Annual Payroll	Annual Average Pay	Annual Percent Increase/ (Decrease) In Average Pay
2007	39,307	\$ 1,891,605	\$ 48,124	11.8%
2008	41,628	2,052,720	49,311	2.5
2009	45,046	2,308,548	51,249	3.9
2010	46,433	2,447,509	52,711	2.9
2011	46,633	2,507,193	53,764	2.0
2012	47,885	2,594,952	54,191	0.8

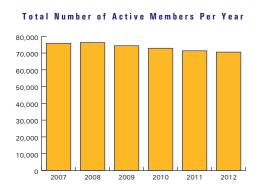


Schedule of Active Member Valuation Data, continued

#### Teachers' Retirement Fund - Total

(dollars in thousands - except annual average pay)

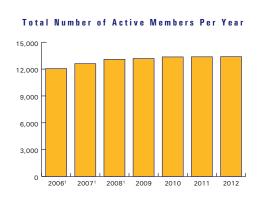
Fiscal Year Ended June 30	Active Members	Annual Payroll	Ave	nual erage ay	Annua Percent Ind (Decreas Average	rease/ e) In
2007	75,833	\$ 4,267,995	\$ 5	6,282		8.6%
2008	76,256	4,348,536	5	7,025		1.3
2009	74,343	4,339,032	5	8,365		2.3
2010	72,872	4,312,611	5	9,181		1.4
2011	71,343	4,269,943	5	9,851		1.1
2012	70,573	4,232,018	5	9,967		0.2



### 1977 Police Officers' and Firefighters' Pension and Disability Fund

(dollars in thousands - except annual average pay)

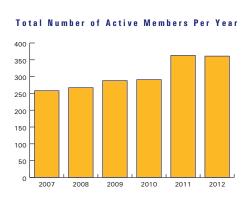
Fiscal Year Ended June 30	Active Members	Annual Payroll	Annual Average Pay	Annual Percent Increase/ (Decrease) In Average Pay
2006 <sup>1</sup>	12,056	\$ 557,644	\$ 46,254	3.9%
20071	12,611	603,963	47,892	3.5
2008 <sup>1</sup>	13,095	644,936	49,251	2.8
2009	13,184	649,018	49,228	_
2010	13,362	675,797	50,576	2.7
2011	13,376	687,342	51,386	1.6
2012	13,390	697,111	52,062	1.3



### Judges' Retirement System

(dollars in thousands - except annual average pay)

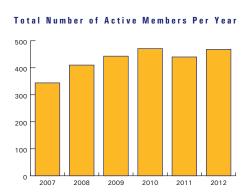
Fiscal Year Ended June 30	Active Members	Annual Payroll	Annual Average Pay	Annual Percent Increase/ (Decrease) In Average Pay
2007	258	\$ 29,712	\$ 115,163	(7.4)%
2008	267	33,729	126,327	9.7
2009	288	36,196	125,680	(0.5)
2010	291	36,722	126,192	0.4
2011	363	45,764	126,072	(0.1)
2012	361	45,138	125,036	(0.8)



State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers' Retirement Plan

(dollars in thousands - except annual average pay)

Fiscal Year Ended June 30	Active Members	Annual Payroll	 Annual Average Pay	Annual Percent Increase/ (Decrease) In Average Pay
2007	344	\$ 17,715	\$ 51,497	7.2%
2008	410	21,333	52,033	1.0
2009	443	25,238	56,971	9.5
2010	471	26,709	56,707	(0.5)
2011	440	24,028	54,609	(3.7)
2012	468	25,752	55,026	0.8



#### Prosecuting Attorneys' Retirement Fund

(dollars in thousands - except annual average pay)

Fiscal Year Ended June 30	Active Members	Annual Payroll	Annual Average Pay	Percent Increase/ (Decrease) In Average Pay
2007	206	\$ 18,092	\$ 87,825	(0.4)%
2008	209	20,617	98,646	12.3
2009	221	20,782	94,037	(4.7)
2010	217	21,016	96,848	3.0
2011	212	18,082	85,292	(11.9)
2012	219	21,705	99,110	16.2



#### Legislators' Defined Benefit Plan<sup>2</sup>

(dollars in thousands - except annual average pay)

Fiscal Year Ended June 30	Active Members	Annual Payroll	Annual Average Pay	Annual Percent Increase/ (Decrease) In Average Pay
2007	43	N/A	N/A	N/A
2008	34	N/A	N/A	N/A
2009	33	N/A	N/A	N/A
2010	20	N/A	N/A	N/A
2011	7	N/A	N/A	N/A
2012	6	N/A	N/A	N/A

Total Number of Active Members Per Year

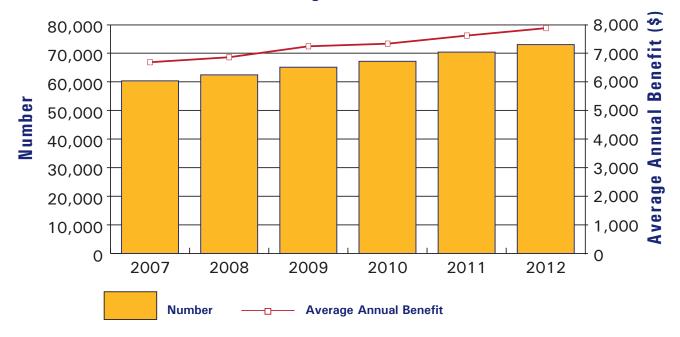
50
40
40
20
10
2007
2008
2009
2010
2011
2012

<sup>&</sup>lt;sup>2</sup>Benefits are not based on annual payroll.

#### Public Employees' Retirement Fund

(dollars in thousands - except average annual benefit)

_	Added to Rolls		Removed	from Rolls	Rolls – Er	nd of Year		
Fiscal Year Ended June 30	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits <sup>1</sup>	Percent Increase / (Decrease) In Total Annual Benefits	Average Annual Benefit <sup>2</sup>
2007	4,633	\$ 42,653	2,584	\$ 15,229	60,332	\$ 412,745	9.3%	\$ 6,841
2008	5,376	43,915	3,284	18,022	62,424	436,749	5.8	6,996
2009	6,047	55,726	3,372	19,103	65,099	477,553	9.3	7,336
2010	4,827	39,214	2,760	19,022	67,166	498,199	4.3	7,417
2011	5,402	56,185	2,188	11,698	70,380	539,747	8.3	7,669
2012	4,751	49,766	2,139	12,540	72,992	576,678	6.8	7,901



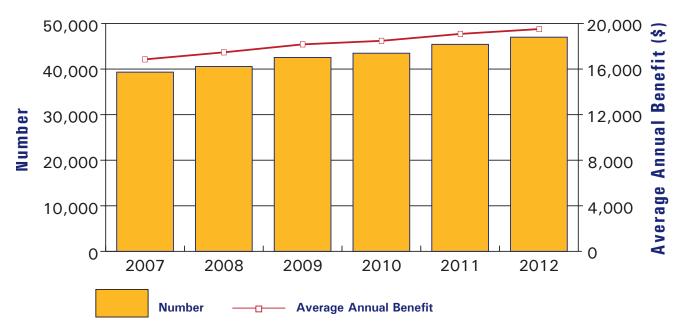
<sup>&</sup>lt;sup>1</sup>End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.

<sup>&</sup>lt;sup>2</sup>For PERF and TRF only, average annual benefit includes member annuities.

#### Teachers' Retirement Fund - Pre-1996 Account

(dollars in thousands - except average annual benefit)

_	Added	to Rolls	Removed	from Rolls	Rolls - End of Year			
Fiscal Year Ended June 30	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits <sup>1</sup>	Percent Increase / (Decrease) In Total Annual Benefits	Average Annual Benefit <sup>2</sup>
2007³	2,292	\$ 52,947	1,063	\$ 12,167	39,328	\$ 658,297	5.4%	\$ 16,739
2008³	2,296	52,167	966	11,026	40,554	701,155	6.5	17,289
2009 <sup>3</sup>	2,344	56,819	929	11,062	42,548	762,067	8.7	17,911
2010	1,940	47,657	1,010	11,982	43,478	790,773	3.8	18,188
2011	3,003	77,290	1,060	13,121	45,421	850,711	7.6	18,729
2012	2,541	63,923	962	12,216	47,000	898,006	5.6	19,107



<sup>&</sup>lt;sup>1</sup>End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.

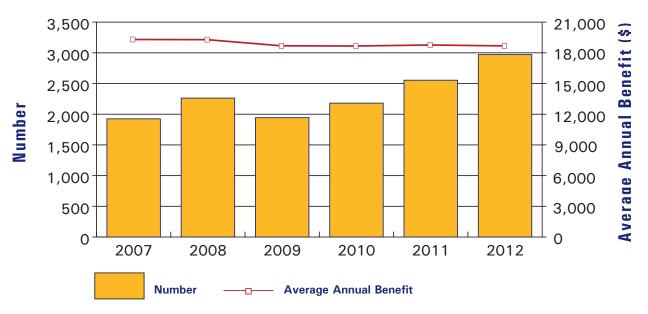
<sup>&</sup>lt;sup>2</sup>For PERF and TRF only, average annual benefit includes member annuities.

<sup>&</sup>lt;sup>3</sup>For TRF only, end of year number of benefit recipients are not equal to prior end of year number of benefit recipients plus additions less removals due to reclassifications between Pre-1996 Account and 1996 Account.

#### Teachers' Retirement Fund - 1996 Account

(dollars in thousands - except average annual benefit)

_	Added to Rolls		Removed from Rolls		Rolls - Er	nd of Year		
Fiscal Year Ended June 30	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits <sup>1</sup>	Percent Increase / (Decrease) In Total Annual Benefits	Average Annual Benefit <sup>2</sup>
2007 <sup>3</sup>	197	\$ 3,658	22	\$ 416	1,925	\$ 37,013	45.4%	\$ 19,228
2008 <sup>3</sup>	255	5,126	21	316	2,263	43,482	17.5	19,214
2009 <sup>3</sup>	270	5,145	10	119	1,944	36,312	(16.5)	18,679
2010	249	4,859	12	129	2,181	40,701	12.1	18,662
2011	390	7,666	17	253	2,554	47,887	17.7	18,750
2012	433	8,132	16	236	2,971	55,475	15.8	18,672



<sup>&</sup>lt;sup>1</sup>End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.

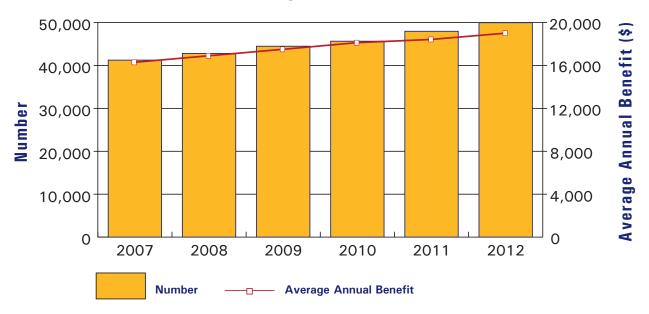
<sup>&</sup>lt;sup>2</sup>For PERF and TRF only, average annual benefit includes member annuities.

<sup>&</sup>lt;sup>3</sup>For TRF only, end of year number of benefit recipients are not equal to prior end of year number of benefit recipients plus additions less removals due to reclassifications between Pre-1996 Account and 1996 Account.

### Teachers' Retirement Fund - Total

(dollars in thousands - except average annual benefit)

_	Added to Rolls		Removed	from Rolls	Rolls – End of Year			
Fiscal Year Ended June 30	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits <sup>1</sup>	Percent Increase / (Decrease) In Total Annual Benefits	Average Annual Benefit <sup>2</sup>
2007	2,489	\$ 56,605	1,085	\$ 12,583	41,253	\$ 695,310	7.0%	\$ 16,855
2008	2,551	57,293	987	11,342	42,817	744,637	7.1	17,391
2009	2,614	61,964	939	11,181	44,492	798,379	7.2	17,944
2010	2,189	52,516	1,022	12,111	45,659	831,474	4.1	18,211
2011	3,393	84,956	1,077	13,374	47,975	898,598	8.1	18,731
2012	2,974	72,055	978	12,452	49,971	953,481	6.1	19,081



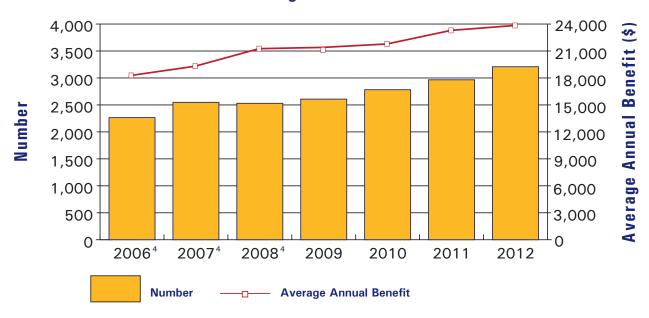
<sup>&</sup>lt;sup>1</sup>End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.

<sup>&</sup>lt;sup>2</sup>For PERF and TRF only, average annual benefit includes member annuities.

### 1977 Police Officers' and Firefighters' Pension and Disability Fund

(dollars in thousands - except average annual benefit)

_	Added	to Rolls	Removed	from Rolls	Rolls – Er	nd of Year		
Fiscal Year Ended June 30	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits <sup>1</sup>	Percent Increase / (Decrease) In Total Annual Benefits	Average Annual Benefit
20064	172	\$ 3,860	34	\$ 592	2,265	\$ 41,973	8.6%	\$ 18,531
20074	333	8,101	50	886	2,548	49,537	18.0	19,442
20084	255	5,861	273	4,565	2,530	53,588	8.2	21,181
2009	102	2,571	24	479	2,608	55,564	3.7	21,305
2010	208	4,918	34	641	2,782	60,220	8.4	21,646
2011	218	6,179	34	609	2,966	68,179	13.2	22,987
2012	281	7,900	39	814	3,208	76,917	12.8	23,977



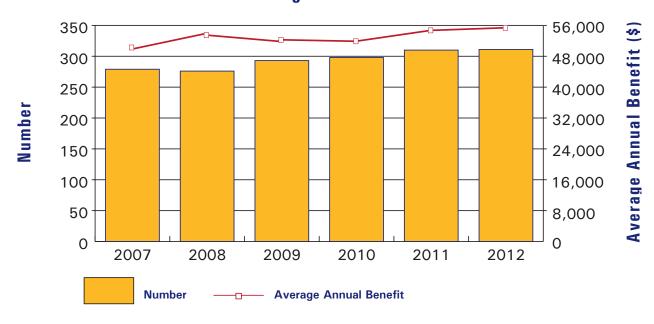
<sup>&</sup>lt;sup>1</sup>End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.

<sup>&</sup>lt;sup>4</sup>As of December 31 instead of June 30.

#### Judges' Retirement System

(dollars in thousands - except average annual benefit)

_	Added to Rolls		Removed	from Rolls	Rolls – Er	d of Year		
Fiscal Year Ended June 30	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits <sup>1</sup>	Percent Increase / (Decrease) In Total Annual Benefits	Average Annual Benefit
2007	18	\$ 976	8	\$ 409	279	\$ 13,899	7.1%	\$ 49,819
2008	23	1,257	26	991	276	14,754	6.1	53,455
2009	74	3,744	57	1,835	293	15,230	3.2	51,978
2010	11	627	6	339	298	15,390	1.1	51,644
2011	21	1,452	9	200	310	16,787	9.1	54,152
2012	7	444	6	194	311	17,028	1.4	54,751

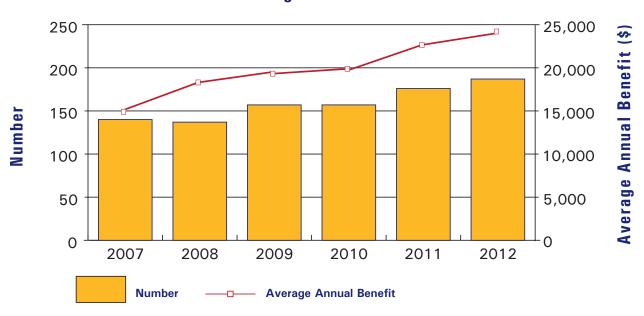


<sup>&</sup>lt;sup>1</sup>End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.

### State Excise Police, Gaming Agent, Gaming Control Officer and Conservation Enforcement Officers' Retirement Plan

(dollars in thousands - except average annual benefit)

_	Added	to Rolls	Removed	from Rolls	Rolls – Er	nd of Year		
Fiscal Year Ended June 30	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits <sup>1</sup>	Percent Increase / (Decrease) In Total Annual Benefits	Average Annual Benefit
2007	13	\$ 359	5	\$ 74	140	\$ 2,176	15.2%	\$ 15,539
2008	9	302	12	119	137	2,518	15.8	18,382
2009	59	748	39	258	157	3,056	21.3	19,465
2010	6	136	6	49	157	3,134	2.6	19,962
2011	22	902	3	23	176	3,978	26.9	22,602
2012	14	495	3	14	187	4,452	11.9	23,810



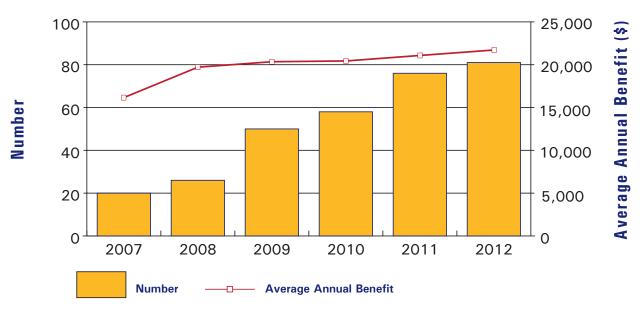
<sup>&</sup>lt;sup>1</sup>End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.

### Prosecuting Attorneys' Retirement Fund

(dollars in thousands - except average annual benefit)

_	Added to Rolls		Removed	Removed from Rolls		nd of Year		
Fiscal Year Ended June 30	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits <sup>1</sup>	Percent Increase / (Decrease) In Total Annual Benefits	Average Annual Benefit
2007	4	\$ 121	2	\$ 32	20	\$ 338	35.6%	\$ 16,905
2008	7	207	1	14	26	522	54.3	20,068
2009	26	536	2	26	50	1,032	97.8	20,636
2010	9	187	1	16	58	1,201	16.4	20,715
2011	19	473	1	16	76	1,618	34.7	21,288
2012	6	178	1	27	81	1,770	9.4	21,853

### Total Number of Retirants and Beneficiaries Per Year and Average Annual Benefit

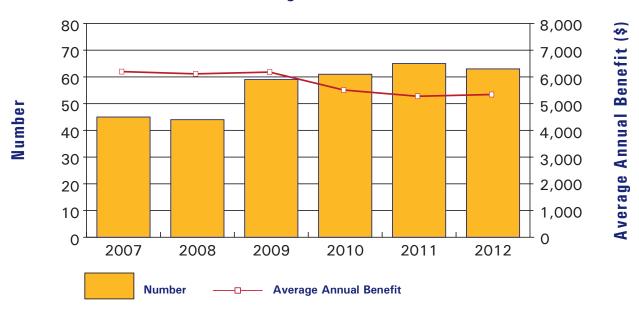


<sup>1</sup>End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.

### Legislators' Defined Benefit Plan

(dollars in thousands - except average annual benefit)

_	Added to Rolls		Removed	from Rolls	Rolls – Er	nd of Year		
Fiscal Year Ended June 30	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits <sup>1</sup>	Percent Increase / (Decrease) In Total Annual Benefits	Average Annual Benefit
2007	6	\$ 31	_	\$ -	45	\$ 283	9.1%	\$ 6,298
2008	1	_	2	10	44	274	(3.4)	6,223
2009	17	88	2	2	59	371	35.3	6,281
2010	5	9	3	27	61	347	(6.5)	5,685
2011	4	22	-	_	65	356	2.6	5,477
2012	2	13	4	20	63	349	(2.0)	5,536



<sup>&</sup>lt;sup>1</sup>End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.

